

### **REMARKS**

The Office Action dated May 2, 2006 and subsequent Advisory Action dated September 25, 2006, have been received and carefully noted. The above amendments to the claims and the following remarks are submitted as a full and complete response thereto.

Claims 1, 12, 14, 19 and 22 are amended to particularly point out and distinctly claim the subject matter of the invention. No new matter is added. Claims 1-24 are respectfully submitted for consideration.

The Office Action rejected claims 1-24 under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,128,328 to Schilling (Schilling). This rejection is respectfully traversed.

Claim 1, from which claims 2-9 depend, is directed to a cellular communication. The cellular system includes at least one cell. The cell includes a coverage layer having a fixed coverage area. The cell further includes a capacity layer including a plurality of carriers. Each carrier in the capacity layer has a variable coverage area.

Claim 10, from which claims 11-18 depend, is directed to a method of configuring a cellular communication system. A coverage layer for a cell is determined, the coverage layer having a fixed coverage area. A capacity layer for the cell is determined, the capacity layer including a plurality of carriers, each carrier in the capacity layer having a variable coverage area.

Claim 19, from which claims 20-24 depend, is directed to a base station of a mobile communication system. At least one transmitting unit is configured to transit a carrier at a predetermined power level thereby defining a coverage area of a cell. The at least one transmitting unit is further configured to transmit a variable number of carriers thereby defining, at least in part, a capacity of the cell.

Applicants respectfully submit that the present invention is directed to a cell that comprises two separate layers. One layer is a coverage layer that has a fixed coverage area. The second layer is a capacity layer that has a variable coverage area. Thus, a system's resources can be distributed between the two layers dynamically in accordance with current requirements, such as the number of carriers in the system. Furthermore, in certain embodiments of the present invention, the separate cells are such that control data is sent by means of a coverage layer which has a fixed coverage area, while traffic data is sent by means of carriers in the capacity layer. In the capacity layer, the power level of each carrier is variable according to the location of the mobile station to which the base station is transmitting. See at least paragraph [0041] of the present specification. Applicants respectfully submit that each of the pending claims recite features that are neither disclosed nor suggested in Schilling.

Schilling is directed to a frequency hopping-communications system, assigned a system bandwidth  $B$ , with the system bandwidth  $B$  divided into  $N$  sets of frequencies, with each set of the  $N$  sets of frequencies not having the same frequencies as other sets of the  $N$  sets of frequencies, for communicating base-message data to a plurality of remote

units. The frequency-hopping-communications system includes a plurality of base stations for communicating base-message data to the plurality of remote units. Each of the base stations has a coverage area. The coverage area is divided into a plurality of concentric regions with each concentric region assigned one of the  $N$  sets of frequencies. For communicating with a selected-remote unit located within a particular-concentric region, each base station has a frequency-hopping device for frequency hopping the base-message data over a set of frequencies assigned to the particular-concentric region, thereby generating a frequency-hopped signal. A controller, responsive to the selected-remote unit is located in the particular-concentric region. The controller controls the set of frequencies used by said frequency-hopping device, and a base antenna coupled to the power amplifier for radiating the frequency-hopped signal. Each of the remote units has a receiver for recovering the base-message data from the frequency-hopped signal.

Applicants respectfully submit that Schilling fails to disclose or suggest at least the feature of dividing a cell into a coverage layer and a capacity layer, as recited in claim 1 and similarly recited in claims 10 and 19. Schilling merely discloses splitting a cell into a number of frequency sets. For example, Schilling describes a predefined coverage area (Figure 8 cell A), is divided into  $N$  concentric regions. See for example, column 8 lines 21-24 of Schilling. The regions in turn are divided into  $M$  sectors. Each sector of a concentric region is assigned a frequency set for communicating with remote units in that particular sector area. Thus, Schilling fails to mention, disclose or otherwise suggest, a

cell that comprises a fixed coverage layer and a flexible capacity layer as recited in claims 1, 10, and 19.

The Advisory Action dated September 25, 2006, stated that Schillings teaching clearly teaches a coverage layer and a capacity layer which reads on the broad claim limitations.” Applicants respectfully submit that claims 1, 10 and 19 clearly recite a cell that comprises a coverage layer and a capacity layer. As stated above, Schilling merely describes a coverage area that is divided into a plurality of concentric regions with each concentric region assigned one of the N sets of frequencies. In Schilling a “cell” is divided into a number of frequency sets. For example, Schilling describes a predefined coverage area (Figure 8 cell A), is divided into N concentric regions. See, column 8 lines 21-24 of Schilling. Thus, the coverage area (alleged cell in the Office Action) does not include a coverage layer and a capacity layer as clearly recited in claims 1, 10 and 19.

Applicants respectfully submit that because claims 2-9, 11-18, and 20-24 depend from claims 1, 10 and 19, these claims are allowable at least for the same reasons as claims 1, 10, and 19, as well as for the additional features recited in these dependent claims.

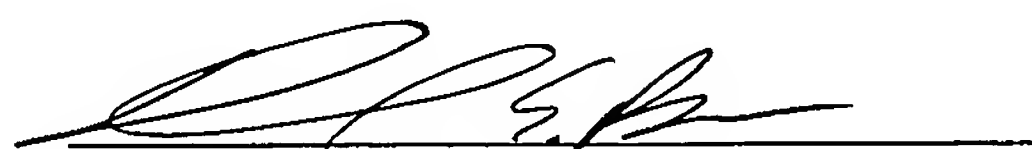
Based at least on the above, Applicants respectfully submit that each of claims 1-24 recite features that are neither disclosed nor suggested in Schilling. Accordingly, withdrawal of the rejection of claims 1-24 under 35 U.S.C. 102(b) is respectfully requested.

Applicants respectfully submit that each of claims 1-24 recite features that are neither disclosed nor suggested in any of the cited references. Accordingly, it is respectfully requested that each of claims 1-24 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



David E. Brown  
Registration No. 51,091

**Customer No. 32294**  
SQUIRE, SANDERS & DEMPSEY LLP  
8000 Towers Crescent Drive, 14<sup>TH</sup> Floor  
Tysons Corner, Virginia 22182-2700  
Telephone: 703-720-7800  
Fax: 703-720-7802  
DEB:jkm

Enclosures: Request for Continued Examination (RCE) Transmittal  
Petition for Extension of Time  
Check No. 15231